AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A substrate processing system, comprising:

a cassette load station;

a transfer chamber, wherein said transfer chamber is ~~centrally located;~~

a load lock chamber located between said cassette load station and said transfer chamber, wherein said load lock chamber comprises a double two dual slot stationary load locks, each ~~comprising stationary dual slots for holding a substrate, said load locks constructed in a stacked configuration at a same location; wherein each of said dual slot load locks further comprises a heating~~ plate and a cooling plate, said heating plate and said cooling plate each located in a different slots ~~or~~ within said ~~dual slot~~ load lock; and

~~a transfer chamber, wherein said transfer chamber is centrally located; and~~

one or more process chambers, wherein said process chambers are located about the periphery of said transfer chamber.

Claim 2 (original): The substrate processing system of claim 1, wherein said substrate is a wafer or a glass substrate.

Claim 3 (canceled).

Claim 4 (currently amended): The substrate processing system of claim 1, wherein said heating plate is ~~a~~ stationary ~~plate~~ or movable ~~a moving plate~~.

Claim 5 (currently amended): The substrate processing system of claim 4, wherein ~~the moving~~ said heating plate is movably actuated ~~operated~~ by a Z-drive.

Claim 6 (currently amended): The substrate processing system of claim ~~3~~ 1, wherein said heating plate heats the substrate ~~up~~ to a temperature of about 400°C.

Claim 7 (currently amended): The substrate processing system of claim 1, wherein said cooling plate is ~~a~~ stationary ~~plate~~ or movable ~~a moving plate~~.

Claim 8 (currently amended): The substrate processing system of claim 7, wherein ~~the moving~~ said cooling plate is movably actuated ~~operated~~ by a Z-drive.

Claim 9 (currently amended): The substrate processing system of claim 1, wherein said cooling plate cools ~~a~~ the substrate temperature ~~down~~ from about 350°C to about 80°C.

Claim 10 (currently amended): The substrate processing system of claim 9, wherein said cooling is done by water, by nitrogen gas or by nitrogen gas mixed with helium.

Claim 11 (canceled).

Claim 12 (currently amended): The substrate processing system of claim 1, further comprising:

a vacuum robot, wherein ~~said vacuum robot is~~ located in said transfer chamber ~~and load/unload~~ for loading and unloading

the substrate between said load lock chamber and said transfer chamber.

Claim 13 (currently amended): The substrate processing system of claim 12, wherein said vacuum robot is movably actuated ~~operated~~ by a Z-drive.

Claim 14 (currently amended): The substrate processing system of claim 1, further comprising:

a flip type door~~, wherein said door is~~ located between said ~~the~~ cassette load station and ~~the~~ said load lock chamber.

Claim 15 (currently amended): The substrate processing system of claim 1, further comprising:

flip type slit valves~~, wherein said valves are~~ located between said ~~the~~ load lock chamber and said ~~the~~ transfer chamber.

Claim 16 (currently amended): The substrate processing system of claim 15, wherein said valves are closed from an

atmospheric side and are operated below a substrate transferring plane.

Claim 17 (currently amended): The substrate processing system of claim 1, further comprising:

filter diffusers~~, wherein said filter diffusers are~~ located in the ~~double~~ two ~~dual slot~~ load locks to prevent particle generation in said load locks.

Claims 18-24 (canceled).

Claim 25 (new): A substrate processing system, comprising:

a cassette load station;

a transfer chamber, wherein said transfer chamber is centrally located;

a load lock chamber located between said cassette load station and said transfer chamber, wherein said load lock chamber comprises two stationary load locks, each comprising stationary dual

slots for holding a substrate, said load locks constructed in a stacked configuration; and

one or more process chambers, wherein said process chambers are located about the periphery of said transfer chamber.

Claim 26 (new): The substrate processing system of claim 25, further comprising:

a heating plate and a cooling plate, said heating plate and said cooling plate each located in a different slot within said load lock.

Claim 27 (new): The substrate processing system of claim 26, wherein said heating plate and said cooling plate are stationary or movable.

Claim 28 (new): The substrate processing system of claim 27, wherein said heating plate and said cooling plate are independently movably actuated by a Z-drive.

Claim 29 (new): The substrate processing system of claim 25, further comprising:

a vacuum robot located in said transfer chamber for loading and unloading the substrate between said load lock chamber and said transfer chamber.

Claim 30 (new): The substrate processing system of claim 29, wherein said vacuum robot is movably actuated by a Z-drive.

Claim 31 (new): The substrate processing system of claim 25, further comprising:

a flip type door located between said cassette load station and said load lock chamber or

flip type slit valves located between said load lock chamber and said transfer chamber or

a combination thereof.

Claim 32 (new): The substrate processing system of claim 31, wherein said valves are closed from an atmospheric side and are operated below a substrate transferring plane.

Claim 33 (new): The substrate processing system of claim 25, further comprising:

filter diffusers located in the two load locks to prevent particle generation in said load locks.